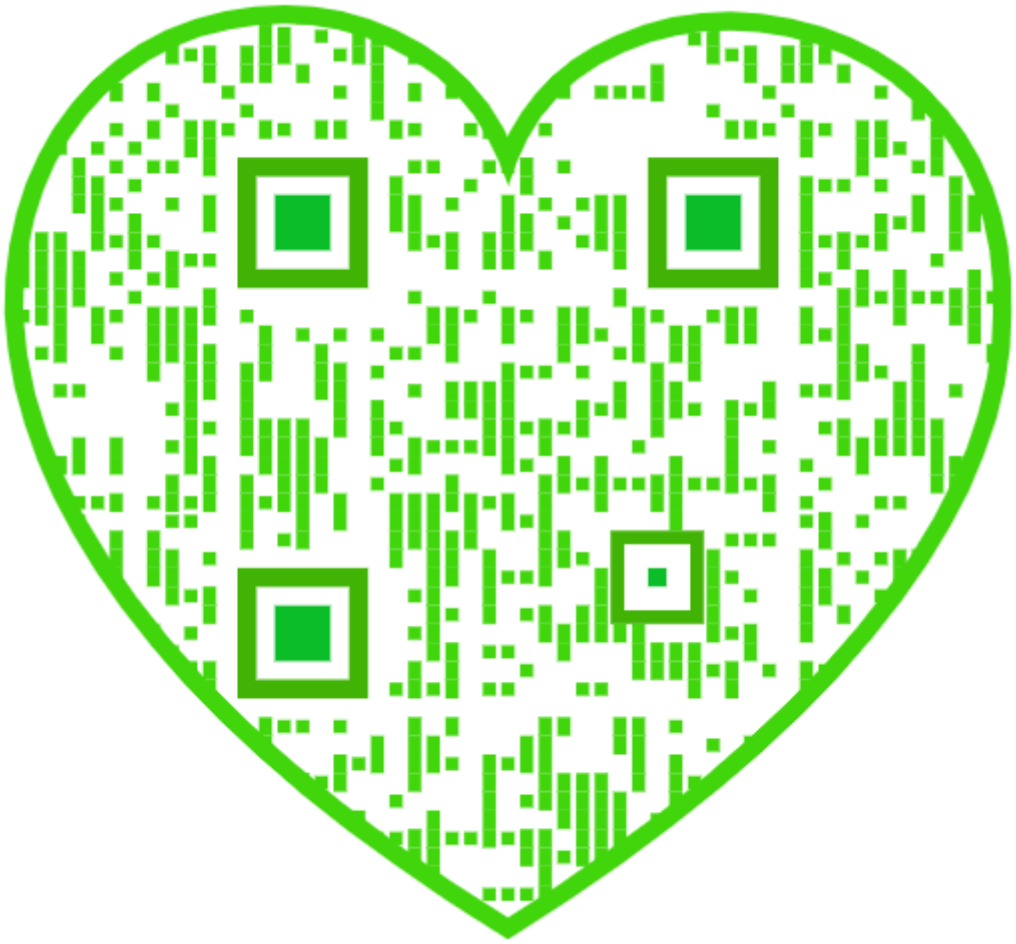
Master in Artificial Intelligence

Problem Definition I



Purpose

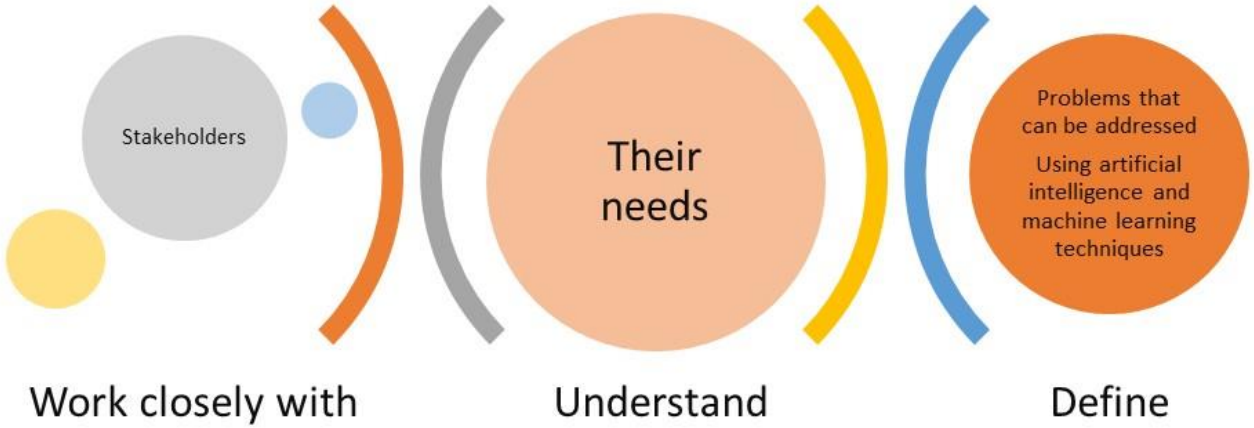
The purpose of the section is to help you learn how to define problems to become a Successful Artificial Intelligence (AI) Engineer

At the end of this lecture, you will learn the following

- **How to understand stakeholders' needs and define problems that can be addressed using artificial intelligence and machine learning techniques**

How to understand stakeholders' needs and define problems

Problem Definition



Identify Stakeholders

Stakeholders who will be impacted by or have a vested interest

- Business leaders
- Domain experts
- End-users
- Data analysts
- IT professionals
- Other relevant parties

Engage Stakeholders

Listen Actively

PARAPHRASE.
Try to paraphrase what the student said to make sure you understand and to show that you are paying attention.

LISTENING MAY BE ENOUGH.
We may be tempted to "fix" the problem, but at times, students just want us to listen.

ASK QUESTIONS.
Ask questions to encourage the student to elaborate on their thoughts and feelings.

EVALUATE THE CONVERSATION.
After you have fully taken in what the student has said, take a moment to evaluate the conversation.

USE POSITIVE BODY LANGUAGE.
Show that you are engaged and interested by nodding, facing the other person, and maintaining an open and relaxed body posture.

DON'T GIVE ADVICE TOO QUICKLY.
Allow the student to finish speaking before attempting to give advice. You want to make sure that you fully understand them first.

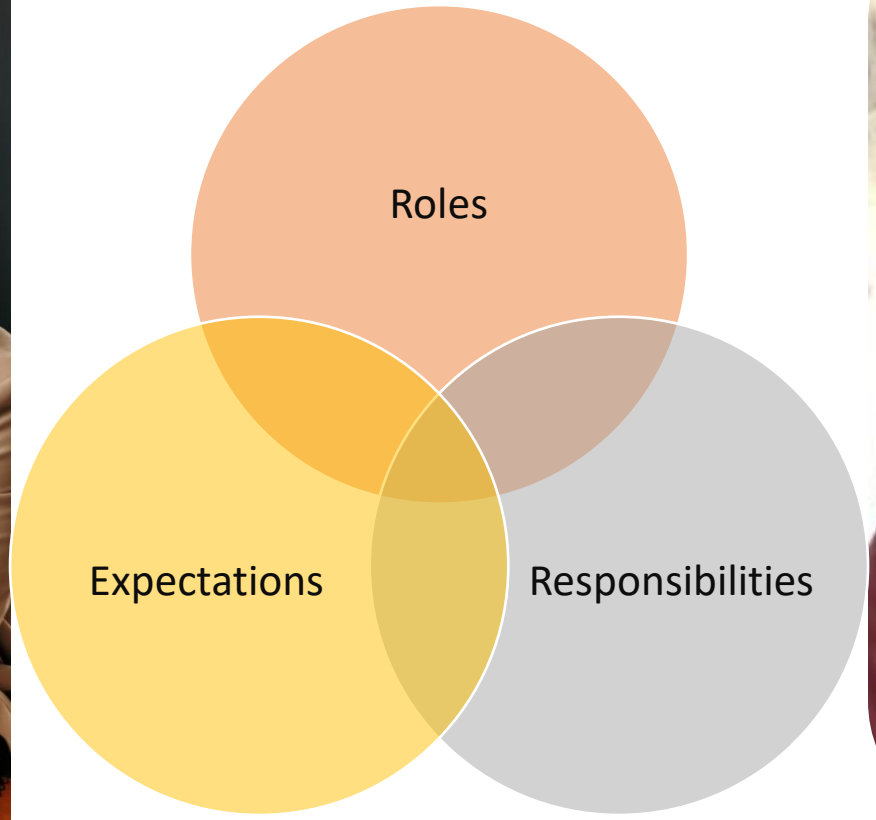
SHOW EMPATHY.
If the student voices negative feelings, try to validate them. Consider why they feel this way and put yourself in their shoes.

AVOID JUDGMENT.
Your goal is to understand your student's perspectives. Try not to interrupt with your own opinions while the student is speaking.

Ask Probing Questions

- What are your key requirements?
- What are the main challenges do you face?
- What are your current pain points?
- Can you please given examples or anecdotes to illustrate these?

Conduct Stakeholder Interviews



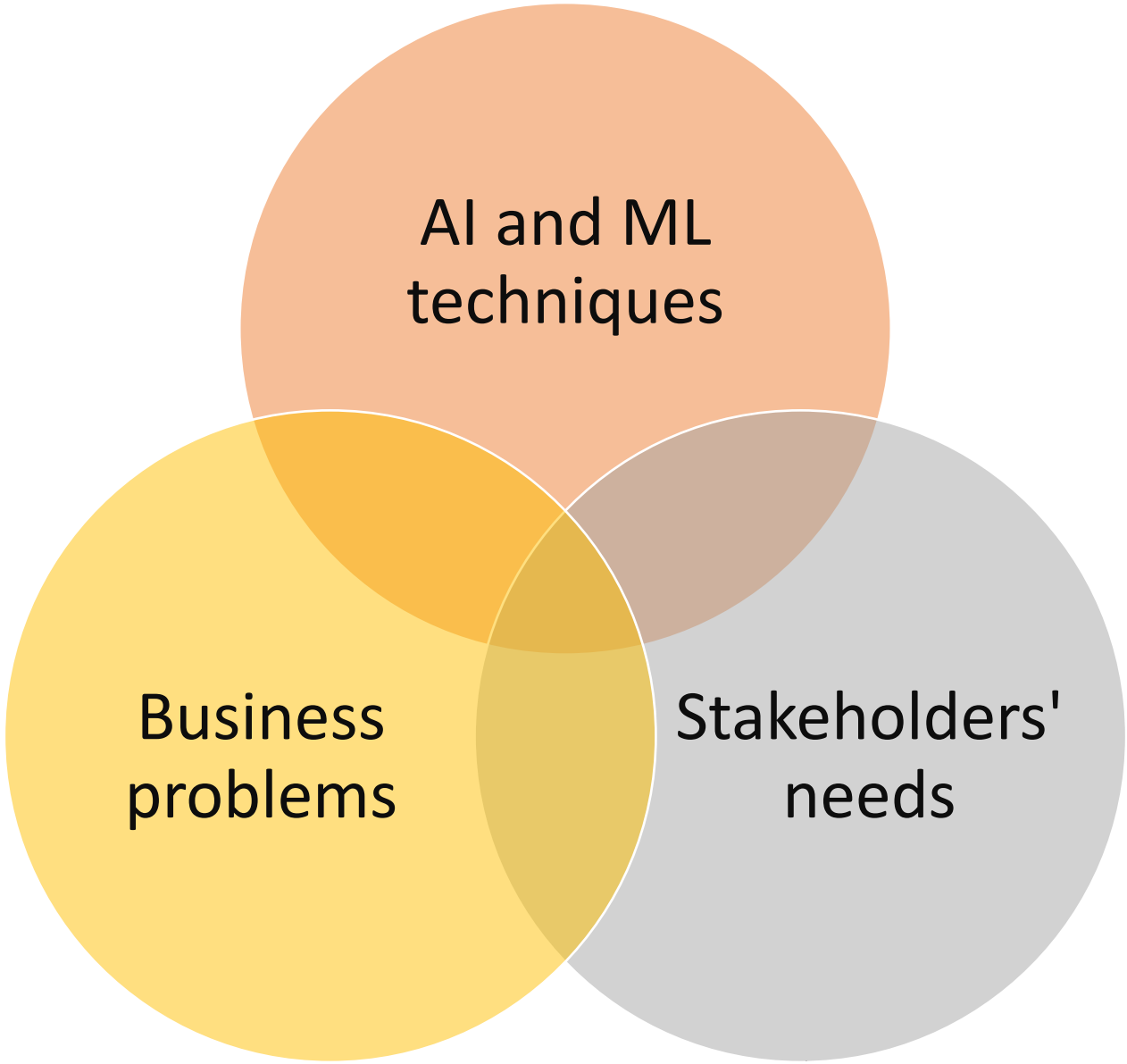
Collect Data

Gather relevant data and information from stakeholders

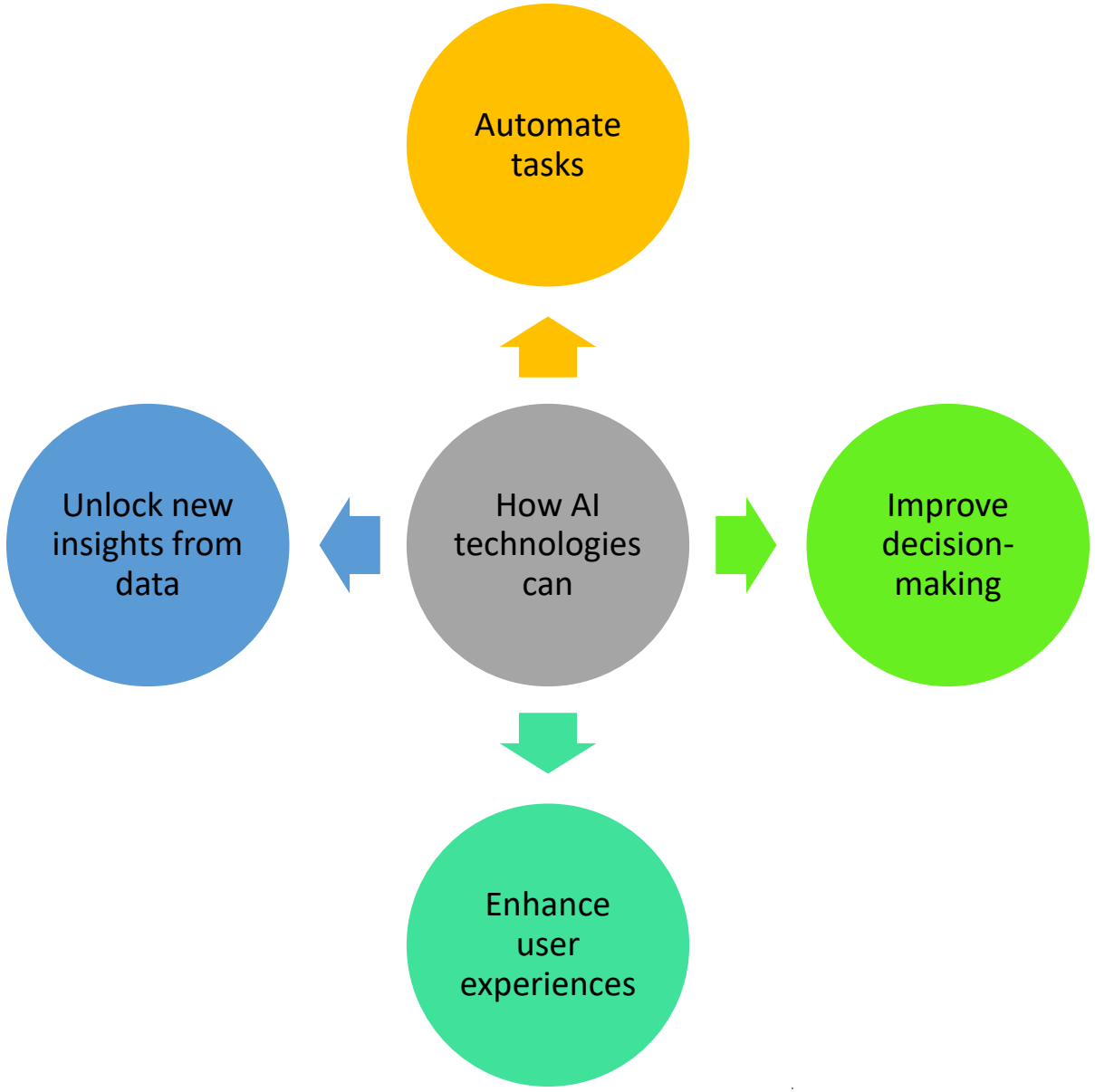
Analyze the data

Identify patterns, trends, and areas for improvement

Map Stakeholder Needs to AI Opportunities



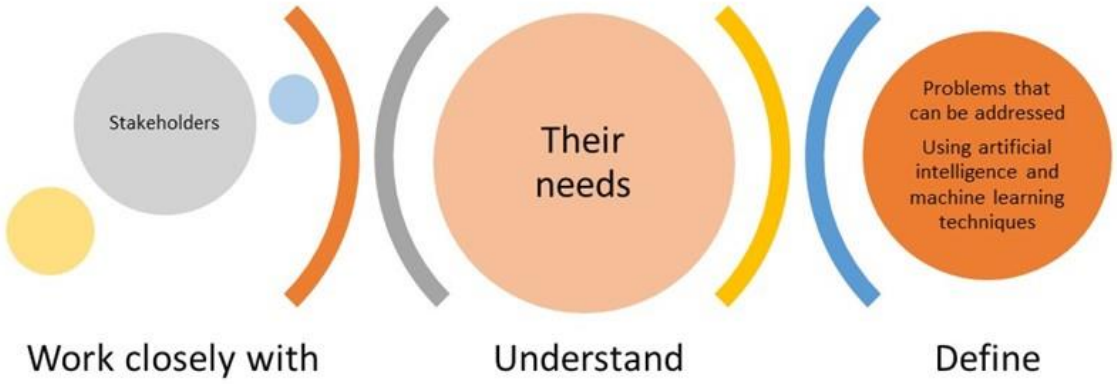
Map Stakeholder Needs to AI Opportunities



What is next?

How to understand stakeholders' needs and define problems

Problem Definition



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